



## University of Groningen

### Reply to letter

Venema, Allart M.; Webber, Jonathon; Schmidt, Andrew C.; Sempstrott, Justin R.; Szpilman, David; Queiroga, Ana Catarina; Graham, Daniel; Barcala-Furelos, Roberto; Tipton, Micheal

*Published in:*  
Resuscitation

*DOI:*  
[10.1016/j.resuscitation.2017.07.017](https://doi.org/10.1016/j.resuscitation.2017.07.017)

**IMPORTANT NOTE:** You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

*Document Version*  
Publisher's PDF, also known as Version of record

*Publication date:*  
2018

[Link to publication in University of Groningen/UMCG research database](#)

#### *Citation for published version (APA):*

Venema, A. M., Webber, J., Schmidt, A. C., Sempstrott, J. R., Szpilman, D., Queiroga, A. C., ... Tipton, M. (2018). Reply to letter: Neurocognitive and behavioral outcomes in a nearly drowned child with cardiac arrest and hypothermia resuscitated after 43 min of no flow-time: A case study. *Resuscitation*, 122, e7-e8. <https://doi.org/10.1016/j.resuscitation.2017.07.017>

#### **Copyright**

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

#### **Take-down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

*Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.*



## Letter to the Editor

**Reply to letter: Neurocognitive and behavioral outcomes in a nearly drowned child with cardiac arrest and hypothermia resuscitated after 43 min of no flow-time: A case study<sup>☆</sup>**



Sir,

We read with great interest the recent case report by Galbiati et al. on a 15-year-old drowning victim with favourable outcome despite a long period of submersion [1]. We applaud the authors for raising awareness of drowning and its treatment, but were surprised the manuscript included the term ‘nearly drowned’.

In 2003 this journal co-published an advisory statement of the International Liaison Committee on Resuscitation (ILCOR) which recommended the use of a uniform way of reporting data on drowning: the ‘Utstein Style for Drowning’ [2]. This consensus-based document was created to provide more consistency in describing drowning research and improve comparability between individual studies. In this statement drowning was defined as “a process resulting in primary respiratory impairment from submersion/immersion in a liquid medium. Implicit in this definition is that a liquid/air interface is present at the entrance of the victim’s airway, preventing the victim from breathing air. The victim may live or die after this process, but whatever the outcome, he or she has been involved in a drowning incident” [2]. The use of the term ‘near-drowning’, which was considered to be confusing, was thus abandoned [2]. For more than a decade now this ‘new’ definition of Drowning has been adopted by the World Health Organisation (WHO) and it has also been incorporated in the European Resuscitation Council Guidelines for Resuscitation [3,4].

We still do not fully understand why some victims survive a drowning incident with good neurological outcome as described in the current case report, whereas others do not. To study this, more research is needed. We believe that the use of uniform terminology describing drowning incidents is vital for good, qualitative comparisons of drowning research, and improving patient outcomes. We therefore urge all authors to describe drowning incidents using the terminology advised by ILCOR and the WHO.

**Conflict of interest statement**

Allart M. Venema, Jonathon Webber, and David Szpilman were involved in the development of the recently published ‘2015 Revised Utstein-Style Recommended Guidelines for Uniform Reporting of Data From Drowning-Related Resuscitation: An ILCOR Advisory Statement’.

<sup>☆</sup> All authors are members of the International Drowning Researchers’ Alliance, <http://idra.world/>.

**References**

- [1]. Galbiati S, Pastore V, Locatelli F, Recla M, Galbiati S, Mansi G, et al. Neurocognitive and behavioral outcomes in a nearly drowned child with cardiac arrest and hypothermia resuscitated after 43 min of no flow-time: a case study. *Resuscitation* 2017, <http://dx.doi.org/10.1016/j.resuscitation.2017.06.028>.
- [2]. Idris AH, Berg RA, Bierens J, Bossaert L, Branche CM, Gabrielli A, et al. Recommended guidelines for uniform reporting of data from drowning: the Utstein style. *Resuscitation* 2003;59:45–57.
- [3]. van Beeck E, Branche C, Szpilman D, Modell J, Bierens J. A new definition of drowning: towards documentation and prevention of a global public health problem. *Bull World Health Organ* 2005;83:853–6.
- [4]. Truhlar A, Deakin CD, Soar J, Khalifa GEA, Alfonso A, Bierens J, et al. European resuscitation council guidelines for resuscitation 2015: section 4. cardiac arrest in special circumstances. *Resuscitation* 2015;95:148–201.

Allart M. Venema<sup>\*</sup>

Department of Anaesthesiology, University Medical  
Center Groningen, University of Groningen,  
Hanzeplein 1, P.O. Box 30001, 9700 RB Groningen,  
The Netherlands

Jonathon Webber

Department of Anaesthesiology, The University of  
Auckland, Auckland, New Zealand

Andrew C. Schmidt

Department of Emergency Medicine, University of  
Florida College of Medicine–Jacksonville, Jacksonville,  
FL, United States

Justin R. Sempsrott

Lifeguards Without Borders, Kuna, ID, United States

David Szpilman

Sociedade Brasileira de Salvamento Aquático, Rio de  
Janeiro, Brazil

Ana Catarina Queiroga

EPI-Unit, Instituto de Saúde Pública, Universidade do  
Porto, Porto, Portugal

Daniel Graham

Rapid International Development, UK

Roberto Barcala-Furelos

REMOSS Research Group, Lifesaving and Motor Skill,  
Faculty of Education and Sport Sciences, University of  
Vigo, Pontevedra, Spain

Michael Tipton

Extreme Environments Laboratory, Department of  
Sport & Exercise Science, University of Portsmouth,  
UK

<sup>\*</sup> Corresponding author.

*E-mail addresses:* [a.m.venema@umcg.nl](mailto:a.m.venema@umcg.nl)  
(A.M. Venema), [jweb018@aucklanduni.ac.nz](mailto:jweb018@aucklanduni.ac.nz)  
(J. Webber), [andrew.schmidt@jax.ufl.edu](mailto:andrew.schmidt@jax.ufl.edu)  
(A.C. Schmidt),  
[justin@lifeguardswithoutborders.org](mailto:justin@lifeguardswithoutborders.org)  
(J.R. Sempsrott), [david@szpilman.com](mailto:david@szpilman.com)  
(D. Szpilman), [acqueiroga@me.com](mailto:acqueiroga@me.com) (A.C. Queiroga),  
[dan@rapidinternationaldevelopment.com](mailto:dan@rapidinternationaldevelopment.com)

(D. Graham), [roberto.barcala.furelos@gmail.com](mailto:roberto.barcala.furelos@gmail.com)  
(R. Barcala-Furelos), [michael.tipton@port.ac.uk](mailto:michael.tipton@port.ac.uk)  
(M. Tipton).

20 July 2017